

REMARKS

The Official Action dated March 25, 2004, has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration and allowance of all remaining claims is respectfully requested.

By present amendment, claims 2, 5, 10 and 14-17 have been amended, support for the amendments being found in the specification and drawings as filed. Claim 10 is amended to include limitations from previous claim 2. Claim 13 has been canceled. It is believed that these changes and additions do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested. Claims 2-12 and 14-21 remain in the application for consideration.

In the Official Action, the Examiner objected to the drawings under 37 C.F.R. § 1.83(a). In light of the cancellation of claim 13, the Examiner's objection has been mooted. Reconsideration is respectfully requested.

Claims 2, 5-7, 12, 14-17 and 20-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by the Ward U.S. Patent No. 5,857,413 (hereinafter referred to as "Ward"). The Examiner asserted that Ward discloses an automated stowage and retrieval system and a method of operating that same. The Examiner noted that Ward discloses a plurality of rectangular motorized pallets contained in a matrix. Moreover, the Examiner alleged that Ward teaches that each pallet includes rollers/wheels and a driving mechanism for bi-directional horizontal movement between pluralities of zones within a matrix. In addition, the Examiner stated that Ward teaches the matrix having at least one vacant zone adapted to the size of the pallet. Furthermore, the Examiner asserted that Ward teaches a system including a programmable controller which receives input concerning a desired load and is

configured to communicate with the plurality of driving mechanisms on the pallets to move a number of pre-selected pallets with the desired load to a predetermined location.

However, as will be set forth in detail below, it is submitted that the stowage and retrieval systems and methods defined by claims 2, 5-7, 12, 14-17 and 20-21 are not anticipated by and are patentably distinguishable from Ward. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The stowage and retrieval systems as defined by claim 2, on which claims 3-9 and 11-12 depend, include automated stowage and retrieval systems for the selective loading or unloading of a payload. The system includes a plurality of pallet carriers contained in a storage matrix, a plurality of driving mechanisms associated with the plurality of pallet carriers and a programmable controller. The matrix has a plurality of storage spaces and is defined by a plurality of horizontal axes, including a plurality of axes extending in a first direction and a plurality of axes extending in a second direction generally perpendicular to the first direction. Each of the plurality of pallet carriers can move into and out of the plurality of storage spaces within the matrix and each are capable of supporting and storing at least one payload and configured to slide bi-directionally along the plurality of horizontal axes in a sequentially coordinated movement with stored payloads with stored payloads supported on other of the plurality of pallet carriers. The stored payloads on the pallet carriers are moved between the plurality of storage spaces to permit movement of a stored payload on another pallet carrier. The plurality of driving mechanisms are configured to slide each of the plurality of pallet carriers along the plurality of horizontal axes of the matrix. The programmable controller is capable of receiving input regarding a desired payload and configured to communicate with the plurality of driving mechanisms to operably coordinate sequential movement of a selected number of the plurality of pallet carriers along the

plurality of horizontal axes to move a predetermined pallet carrier having the desired payload to a predetermined position.

The methods of stowing and retrieving a payload as defined by claim 14, on which claims 15-21 depend, include positioning a first pallet carrier at a predetermined position in a storage matrix to load or unload at least one payload associated with the first pallet carrier and sliding a selected number of a plurality of pallet carriers in coordinated sequential movement to move a second pallet carrier to the predetermined position to load or unload at least one payload associated with the second pallet carrier. The matrix has a plurality of storage spaces and is defined by a plurality of horizontal axes, including a plurality of axes extending in a first direction and a plurality of axes extending in a second direction generally perpendicular to the first direction. The matrix includes a plurality of pallet carriers each being moveable into and out of the plurality of storage spaces within the matrix, each of the pallet carriers being capable of supporting and storing at least one payload and configured to slide bi-directionally along the plurality of horizontal axes in sequentially coordinated movement with other of the plurality of pallet carriers. The stored payloads on the pallet carriers are moved between the plurality of storage spaces to permit movement of a stored payload on another pallet carrier.

In contrast, Ward discloses a powered pallet for use in two intersecting trackways (abstract). Ward teaches a system to prevent each pallet assembly from bumping into each other in a warehouse setting, especially in the case where a plurality of pallets are simultaneously or sequentially moving in the same trackway grid (col. 11, lines 7-10). Furthermore, Ward discloses having walls or islands included in the trackway system (FIGS. 1 and 9).

Rejection for anticipation or lack of novelty requires, as the first step in the query, that all elements of the claimed invention be described in single reference. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989), *cert. denied*, 493 U.S.P.Q.853 (1989). Applicant is unable to find any teaching or disclosure by Ward of stowage and retrieval systems or methods as defined by the present claims. To anticipate, every element and limitations of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 U.S.P.Q.2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Applicant finds no teaching or disclosure in Ward of any such stowage and retrieval system or method where the plurality of pallet carriers are contained in a storage matrix, where the matrix has a plurality of storage spaces. Moreover, Ward does not teach that the pallet carriers are capable of supporting and storing a payload, where the stored payloads on the pallet carriers are moved between the plurality of storage spaces to permit movement of a stored payload on another pallet carrier. The teachings in Ward are directed to the movement of an individual pallet along a trackway (see Fig. 9) and the ability of the pallets to move between trackways, but fails to disclose the pallet carriers as serving to store payloads. In view of the deficiencies of Ward to teach the stowage and retrieval systems and methods as set forth in claims 2, 5-7, 12, 14-17 and 20-21, the presently claimed invention is not taught or disclosed by Ward.

It is therefore submitted that the stowage and retrieval systems and methods as defined by claims 2, 5-7, 12, 14-17 and 20-21 are not anticipated by and are patentably distinguishable from Ward and the rejection of claims 2, 5-7, 12, 14-17 and 20-21 under 35 U.S.C. § 102 has been overcome. Reconsideration is respectfully requested.

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Claims 3-4, 8-9, 11 and 18-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward. The Examiner once again noted those elements he believes are taught by Ward, and further stated that other disclosures in Ward would have made it obvious for a person with ordinary skill in the art to practice the limitations of claims 3-4, 8-9, 11 and 18-19.

However, Applicants submit that the storage and retrieval systems and methods as set forth in claims 3-4, 8-9, 11 and 18-19 are nonobvious over Ward. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

References relied upon to support a rejection under 35 U.S.C. § 103 must provide an enabling disclosure, i.e., it must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). However, Ward fails to teach or suggest a system or method where the plurality of pallet carriers are contained in a storage matrix, and where the matrix has a plurality of storage spaces. Moreover, Ward does not teach that the pallet carriers are capable of supporting and storing a payload, where the stored payloads on the pallet carriers are moved between the plurality of storage spaces to permit movement of a stored payload on another pallet carrier. Thus, Ward does not support a rejection of claims 3-4, 8-9, 11 and 18-19 under 35 U.S.C. § 103. Applicant therefore submits that the 35 U.S.C. § 103 rejection of the presently claimed systems and methods of claims 3-4, 8-9, 11 and 18-19 over Ward have been overcome. Reconsideration is respectfully requested.

Claims 2-9, 12 and 14-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Day, III et al U.S. Patent No. 5,395,199 (hereinafter referred to as "Day, III et al"). The Examiner asserted that Day, III et al disclose an automated stowage and retrieval system and a method of operating. The Examiner noted that Day, III et al disclose a plurality of rectangular motorized pallets contained in a matrix. Moreover, the Examiner

alleged that Day, III et al teach that each pallet includes rollers/wheels and a driving mechanism for bi-directional horizontal movement between pluralities of zones within a matrix. In addition, the Examiner stated that Day, III et al teach the matrix having at least one vacant zone adapted to the size of the pallet. Furthermore, the Examiner asserted that Day, III et al teach a system including a programmable controller which receives input concerning a desired load and is configured to communicate with the plurality of driving mechanisms on the pallets to move a number of pre-selected pallets with the desired load to a predetermined location.

However, as will be set forth in detail below, it is submitted that the stowage and retrieval systems and methods defined by claims 2-9, 12 and 14-21 are nonobvious over and are patentably distinguishable from Day, III et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The systems and methods of the present application are discussed above. Applicant finds no teaching by Day, III et al of the stowage and retrieval systems or methods as defined by claims 2-9, 12 and 14-21. That is, Day, III et al disclose an automated storage library including one or more robotic accessors which move on the surface of a horizontal plane which include openings to storage cells (abstract). Moreover, Day, III et al teach the accessors are wireless, remotely controlled vehicles (abstract). Furthermore, Day, II et al disclose that the vehicles transport storage mediums to new storage cells (col. 6, lines 17-19).

Thus, the teachings of Day, III et al do not render the limitations of claims 2-9, 12 and 14-21 obvious. Once again, Applicant finds no teaching or disclosure in Day, III et al of any such stowage or retrieval systems or methods having a plurality of pallet carriers contained in a storage matrix, which have a plurality of storage spaces. Moreover, Day, III et al do not teach that the pallet carriers are capable of supporting and storing a payload, where the stored

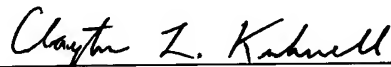
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payloads, or the pallet carriers are moved between the plurality of storage spaces to permit movement of a stored payload in another carrier. As such, the stowage and retrieval systems and methods in the present application are not taught or disclosed by Day, III et al.

It is therefore submitted that the stowage and retrieval systems and methods as defined by claims 2-9, 12 and 14-21 are nonobvious over and are patentably distinguishable from Day, III et al and the rejection of claims 2-9, 12 and 14-21 under 35 U.S.C. § 103 has been overcome. Reconsideration is respectfully requested.

It is believed that the above amendments and remarks represent a complete response to the Examiner's objections and rejections under 35 U.S.C. §§ 102 and 103, and as such, place the present application having claims 2-12 and 14-21 in condition for allowance. In the event that the present application is not in condition for allowance, entry of the present amendment for purposes of appeal is requested. Reconsideration and an early allowance are requested.

Respectfully submitted,



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